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EXAMINER	
NGUYEN, TAN D	
ART UNIT	PAPER NUMBER
3689	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/881,001	LOF ET AL.	
	Examiner	Art Unit	
	Tan Dean D. Nguyen	3689	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18-30* is/are pending in the application.

4a) Of the above claim(s) *1-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15,16 and 18-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8/15/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed 9/17/08 has been entered. Claims 15-16, 18-30 (method) are pending. Claim 15 has been amended. Claims 1-14 have been withdrawn. Claims 15-16, 18-30 are active and are rejected as followed. Claim 17 is canceled.

As of 9/17/08, independent method claim 15 is as followed:

Claim 15 (Currently Amended): A method for coordinating power output from a renewable power production facility with another power production facility so as to implement a virtual energy storage mechanism for the renewable power production facility, comprising steps of:

(a) producing and applying to transmission lines a predetermined amount of electric power collectively provided by the renewable power production facility and from said other another power production facility, said renewable power production facility applying a variable amount of electric power, and said another power production facility applying a controllable amount of electric power;

(b) determining that an the variable amount of power produced by the renewable power production facility deviates from a threshold by a predetermined quantity;

(c) informing said another power production facility of said predetermined quantity;

(d) adjusting and applying to the transmission lines a power output of said other another power production facility by an amount that corresponds with said predetermined quantity so as to compensate for any deviation from the threshold by the

renewable power production facility and have a resultant total power produced by or on behalf of the renewable power production facility to be approximately at said threshold; and

(e) keeping an account balance in a memory of an amount of energy to be later produced by the another power production facility on behalf of the renewable power production facility, wherein said another power production facility serves as the virtual energy storage mechanism by releasing stored resources to produce power to cover a production shortfall by said renewable power production facility, and by increasing potential energy capturing and storing resources at the another power production facility to offset a production surplus by the renewable power production facility.

Note that for convenience, letters (a)-(e) are inserted before each step.

2. Note: This is a method claim.

1) In claim 1, step (d), the phrase "so as to compensate to compensate for any deviation from the threshold by the renewable power production facility and have a resultant total power produced by or on behalf of the renewable power production facility to be approximately at said threshold" is not a positively recited method step but, rather, is mere intended use of the adjusted and applied amount and thus having no patentable weight. See MPEP 2173.05 (q), 2106, and 2111.04, which indicate that a method claim requires active, positive steps.

2) Similarly, in claim 1, step (e), the phrase "to be later produced by the another power production facility on behalf of the renewable power production facility" is not a

positively recited method step but, rather, is mere intended use of the energy and thus having no patentable weight. See MPEP 2173.05 (q), 2106, and 2111.04, which indicate that a method claim requires active, positive steps.

3) Similarly, in claim 1, step (e), the phrase "to produce power to cover a production shortfall by said renewable power production facility" is not a positively recited method step but, rather, is mere intended use of the released stored resources and thus having no patentable weight.

4) in claim 1, step (e), the phrase" to offset a production surplus by the renewable power production facility" is not a positively recited method step but, rather, is mere intended use of the releases stored resources and thus having no patentable weight.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 15-16, 18-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent a method claim must (1) be tied to another statutory class of invention (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (see at least *Diamond v.* Diehr, 450 U.S. 175, 184 (1981); *Parker v.* Flook, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v.* Benson, 409 U.S. 63, 70 (1972); *Cochrane v.* Deener, 94 U.S. 780, 787-88 (1876)). A method claim

that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter.

Here claims 15-16, 18-30 fail to meet the above requirements since there is not a sufficient tie to another statutory class.

Claim Rejections - 35 USC § 112

3. Claims 15-16, 18-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) In claim 15, step (b), the phrase "determining that an the variable amount of power produced by the renewable power production facility deviates from a threshold by a predetermined quantity" is vague because this is "a variable amount of electric power" and it's not clear how one can control the output to deviate from a threshold which appears to be a "fixed" value another "fixed" or "a predetermined amount"? The specification or Fig. 20, step 2003 indicates "deviates from a predetermined amount" only. Clarification is needed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 15-16 are rejected under 35 U.S.C. 103(a) as obvious over WEISS (US 6,681,156) in view of TAKRITI (US 6,021,402).**

Similarly, **WEISS** discloses a method for coordinating power output between several power generators/producers wherein one of the power generator/producer is a renewable power comprising the steps of:

(a) producing and applying to transmission lines a predetermined amount of electric power collectively provided by the renewable power production facility and from said other another power production facility, said renewable power production facility

applying a variable about of electric power, and said another power production facility applying a controllable amount of electric power;

{see Figs. 1, 2B, 3, 4, cols. 7-8}

(b) determining an amount of power produced by (1) renewable power producer that deviates (deviation) from a pre-determined threshold (value, target, or suggested);

{see col. 14, lines 30-67, col. 17, lines 55-67, Figs. 13G, 13F}

(c.) informing said (2) other power producer of the deviation amount;

{see Fig. 3, 4}

(d) adjusting the power output of (2) other power producer for an amount that corresponds to the deviation amount of step (c.).

{see col. 15, lines 27-62, col. 17, lines 31-67, which deals with "renewable power sources"}.

WEISS teaches the claimed invention except for the last step.

In a similar method for coordinating power output from a renewable power production facility with another power production facility so as to implement a virtual energy storage mechanism for the renewable power production facility, TAKRITI fairly teaches step (e) for the purpose of fulfilling the power exchange contract and balance obligation agreement settlement as shown on cols. 2-3, 4, 6 and Figs. 2, 8, 13A and 13B. It would have been obvious to modify the teachings ofWEISS by carrying out step (e) as taught by TAKRITI for the purpose of fulfilling the power exchange contract and balance obligation agreement settlement and avoid problems as shown on col. 2, line 11 to col. 3, line 4 while meeting customer's demand and maintain high reliability in the

electrical system as indicated on col. 3, lines 5-35, and the benefits as shown on col. 4, lines 51 to col. 5, line 19..

As for dep. claim 16 (part of 15 above), which deals with the type of renewable power, i.e. wind turbine, this is non-essential to the scope of the scope of the invention and is also taught in WEISS col. 7, lines 45-50.

As for dep. claims 19-27 (part of 15 above), which basically deal with cost optimization of renewable power sources, i.e. offering a sale when market price is favorable, these are fairly taught in TAKRITI col. 4-7 which basically deal with a method for optimization cost for managing generating units of an electrical utility which handles multiple fuels (energy resources), fuel constraints, varying fuel prices, power trading, and load uncertainty, for the goal of meeting the electric demand of customers at a minimal cost while making the maximum profit possible from power trading {see col. 4, line 58 to col. 5, line 10.

As for dep. claims 28-30 (part of 15 above), which basically deal with load controlling/adjusting parameters, these are fairly taught in WEISS Figs. 3-5, 9 and TAKRITI cols. 2-3 and 4-7.

7. Dependent claim 18 (part of 15 above) are rejected under 35 U.S.C. 103(a) as being unpatentable over WEISS /TAKRITI as applied to claims 15-16 above, and further in view of EDELMAN et al (US Patent 6,281,601).

As for dep. claim 18 (part of 15 above), which basically deals with mechanism for storing the excess/unused energy and monitoring or keeping an account of the

storage amount, these are fairly taught in EDELMAN et al on Fig. 2, element (50) "ENERGY STORAGE (POWER SOURCE)" with bi-directional power controller (40) with various energy components which can be used to supply, store and/or use power in an efficient energy management manner {see col. 3, lines 40-55}. It would have been obvious to modify the teachings of PEREZ / WEISS /AAPA to include power controller and energy storage mechanism as taught by EDELMAN et al for efficient energy management manner.

8. Dependent claims 28-30 (part of 15 above) are rejected (2nd time) under 35 U.S.C. 103(a) as being unpatentable over WEISS /TAKRITI as applied to claims 15-16 above, and further in view of PITCHFORD et al (US Patent 6,327,541).

As for dep. claims 28-30 (part of 15 above), which basically deal with the steps for implement the last step of (d) adjusting step by electronic and non-electronic communications, these are fairly taught in PITCHFORD et al Figs. 1A, elements 20, 22, 24, 28, Fig. 2B, col. 1, line 10, to col. 2, line 33 for the 4 benefits as cited on col. 2, lines 26-34. It would have been obvious to modify the teachings of PEREZ / WEISS / AAPA to include electronic and non-electronic communications for implementing step (d) as taught by PITCHFORD et al for at least 1 of the 4 benefits cited in col. 2, lines 25-34, or col. 1, lines 27-32, 55-60.

Response to Arguments

9. Applicant's arguments with respect to claims 15-16, 18-30 have been considered but are moot in view of the new ground(s) of rejection which are due to applicant's amendment and the new claim interpretations cited above.

No claims are allowed.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see http://pair-direct@uspto.gov. Should you have any questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

In receiving an Office Action, it becomes apparent that certain documents are missing, e. g. copies of references, Forms PTO 1449, PTO-892, etc., requests for copies should be directed to Tech Center 3600 Customer Service at (571) 272-3600, or e-mail CustomerService3600@uspto.gov .

Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday.

Should I be unavailable during my normal working hours, my supervisor Janice Mooneyham can be reached at (571) 272-6805.

The main FAX phone numbers for formal communications concerning this application are **(571) 273-8300**. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

/Tan Dean D. Nguyen/
Primary Examiner, Art Unit 3689